

## Siemens Remote Services

CO

### Hardware Installation Guide

**RDIAG Router 1603 Analog IPSEC**  
**Partnumber 73 82 836**

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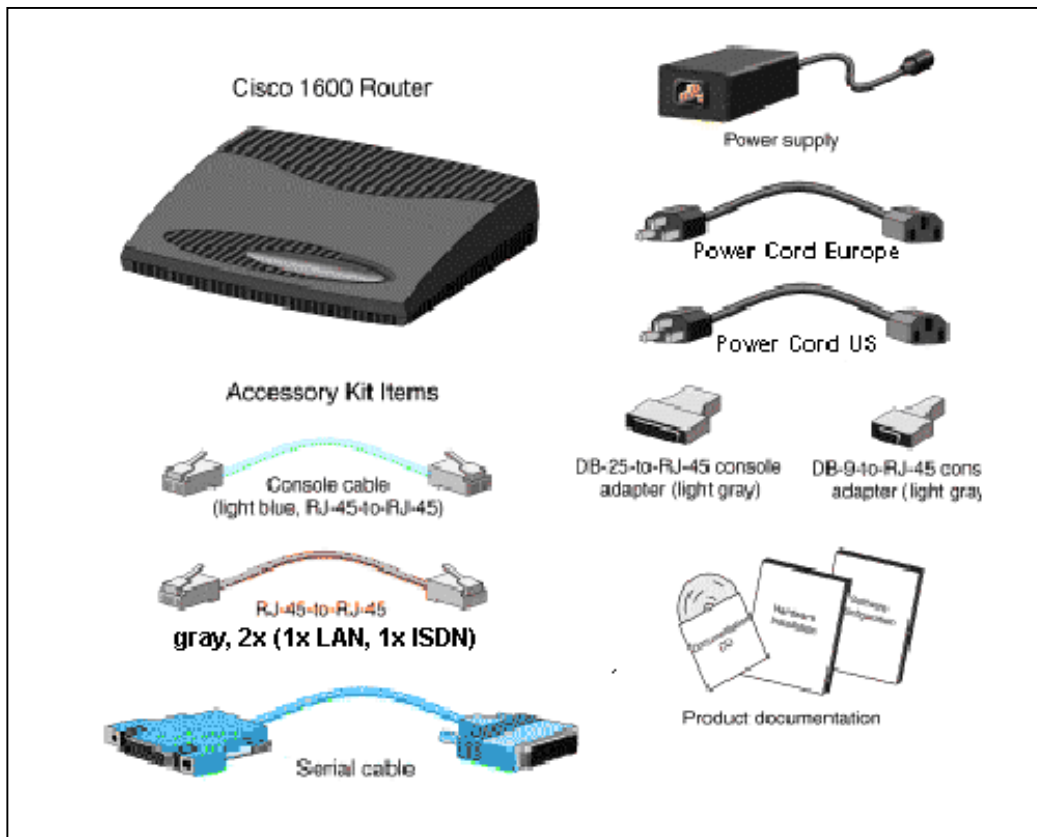
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### Revisionhistory

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all	all	02

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### Unpack the Box



## 1. Before Installation

Cisco 1600 series routers are shipped to you ready for desktop mounting. Before connecting the router to the network and power supply, simply set the router on a desktop, shelf, or other flat surface. The router you got is preconfigured by SIEMENS Medical Solutions. The router package includes power cords for the US and Europe. You need to provide a power cord for other countries. Pay attention to the Maximum Cable Lengths (see Appendix C).

## 2. Connecting Power and Turning the Router On

You can verify your installation by checking the appropriate LEDs during the installation process if you switch the router on before making any network connections.

Follow these steps to connect the router to the power supply and turn it on:

- Step 1** Connect the DC power cable (included with the router) from the power supply to the DC power input on the rear panel of the router. (Figure 1)
- Step 2** Connect the female end of the cable to the male receptacle of the power supply.
- Step 3** Connect the male end of the power cable to the power outlet.
- Step 4** On the rear panel of the router, turn the power ON by setting the switch labeled I / O to the I position.
- Step 5** Slip the wire clip over the power cord to ensure that the power cord remains attached to the router, as shown in Figure 1.
- Step 6** Check the following LEDs:
- The SYSTEM PWR LED (front panel)---On if power is being supplied to router.
  - The SYSTEM OK LED (front panel)---On while router software is operational. (This LED first blinks and then remains on continuously.)
  - The OK LED (rear panel, next to Flash PC card slot)---On if the Flash memory card is installed correctly.

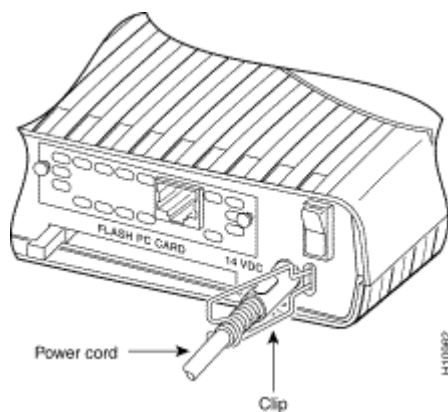


Figure 1

## 3. Connecting Cisco 1603 to the LAN

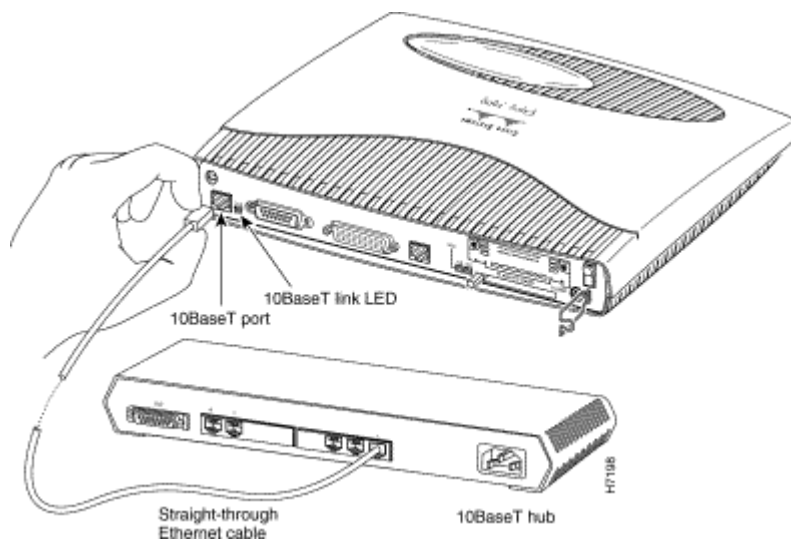
One of the gray straight-through RJ-45-to-RJ-45 cables (contained in the package – do not use a cable with the label „CAB-U-RJ45“) is necessary for this connection. Follow these steps to connect the router to a 10BaseT Ethernet LAN (Figure 2):

**Step 1** Connect one end of the Ethernet cable to the 10BASE T port.

**Step 2** Connect the other end of the cable to one of the ports on the 10BaseT hub, switch or network walljack.

**Step 3** Check the following LEDs:

- LNK LED (rear panel, next to 10BaseT port)---On if the router is connected correctly to the 10BaseT Ethernet LAN.
- LAN ACT LED (front panel)---On while there is traffic on the Ethernet LAN.



**Figure 2**

**Note:** If you want to connect the router directly to a PC, Server, Workstation you will need a cross over RJ-45-to-RJ-45 cable (*not included in the package*).

## 4. Connecting Cisco 1603 (WIC) to the WAN

The 1-port serial WAN interface card (see Figure 3 – already built in the router) has a DB-60 serial port. Use the correct cable (contained in the package) for your serial WAN interface card (CAB-232MT).

**Step 1** Use the serial cable and connect one end of the cable to the serial port of the router (Figure 3)

**Step 2** Connect the other end of the cable to the asynchronous modem that you provide (Figure 4)

**Step 3** Connect the modem to the telephone line

In case the modem you want to use was formerly connected directly to a system/modality, the modem needs to be reset to factory defaults before it can be used. For Multitech modems, this procedure is described in *Appendix J*, for other modems, refer to their instruction guide.

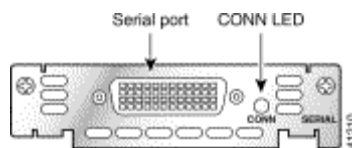


Figure 3

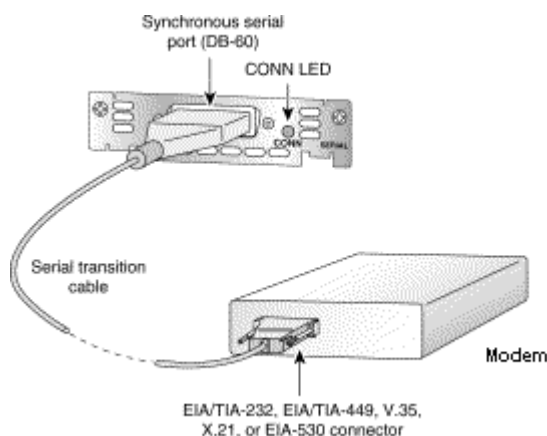


Figure 4

### 5. Final Configuration – performed by SIEMENS Remote Service

The router hardware configuration is finished. The final configuration will be carried out by SIEMENS Remote Services. This service is free-of-charge. **DO NOT** start to configure the router by yourself! In order to use the central service of remote final configuration, fill out the checklist which can be found either in the router box or in the internet at the following address:

<http://www-td.med.siemens.de/router/checklist.doc>

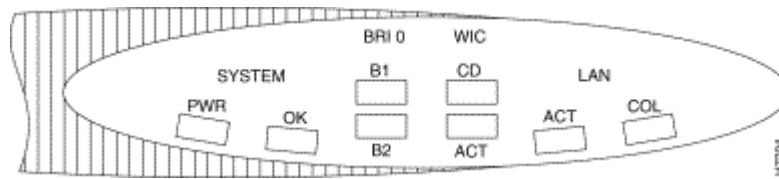
**It is important that you do not undertake any additional configurations on your own since the configuration needs to comply with certain standards in order for the router to function properly.**

The final configuration includes registering the medical systems by the remote diagnostic server at SIEMENS Remote Services.



## 6. Appendix

### Appendix A) Front Panel LEDs



LED	Color	Description
SYSTEM PWR	Green	The router is turned on, and DC power is being supplied.
SYSTEM OK	Green	The router has successfully booted. Blinks during the boot cycle.
LAN ACT	Green	Data is being sent to or received from the local Ethernet LAN.
LAN COL	Yellow	Flashing indicates packet collisions on the local Ethernet LAN.
BRI 0 B1	Green	An ISDN connection on B-channel 1. Cisco 1604 only---If an ISDN device connected to the ISDN S/T port is using B-channel 1, the LED turns on.
BRI 0 B2	Green	An ISDN connection on B-channel 2. Cisco 1604 only---If an ISDN device connected to the ISDN S/T port is using B-channel 2, the LED turns on.
WIC CD	Green	Active connection on the WAN interface card serial port.
WIC ACT	Green	Data is being sent over the WAN interface card serial port.

### Appendix B) Rear Panel LEDs

LED	Color	Description
LNK(next to ETHERNETØ 10BASET)	Green	Indicates 10BaseT link integrity. This LED is not on when connected to an Ethernet network through the AUI port. The Cisco 1605 has two LNK LEDs, one for each Ethernet 10BaseT port.
OK (next to FLASH PC CARD slot)	Green	The Flash PC card is correctly installed.
OK (next to ISDN BRIØ S/T port)	Green	A physical connection has been established with the ISDN central office switch.

### Appendix C) Maximum Cable Lengths

Cable	Maximum Length
Ethernet	100 metres
ISDN S/T	10 metres
Telephone cable	152 metres

### Appendix D) Recommended Modem

Country	Modem Typ	SIEMENS Part#
Germany	Multitech MT2834ZDXIe-33-DE	5533356
Japan	Multitech MT 2834 ZDXI-33-JP	5533364
Switzerland	Multitech MT2834ZDXIe-33-CH	5533372
Sweden	Multitech MT2834ZDXIe-33-SE	5533380
Norway	Multitech MT2834ZDXIe-33-NO	5533398
Netherlands	Multitech MT2834ZDXIe-33-NL	5533406
Italy	Multitech MT2834ZDXIe-33-IT	5533414
Belgium	Multitech MT2834ZDXIe-33-BE	5533422
United Kingdom	Multitech MT2834ZDXIe-33-GB	5533430
USA/Canada	Multitech MT2834ZDXB-SC	5533463
France	Multitech MT2834ZDXIe-33-FR	5533448
Austria	Multitech MT2834ZDXIe-33-AT	5533455
Other	Multitech MT2834ZDX+ country specific adapter	obtain modem locally

## Appendix E) Connecting the Console Port

The cable and adapters required for this connection are included in the package. Follow these steps to connect the router to a terminal or PC:

**Step 1** Connect one end of the light-blue console cable to the light-blue CONSOLE port of the router (Figure 5).

**Step 2** Use the correct adapter to connect the other end of the cable to your terminal or PC (serial interface).

**Note** If your terminal or PC has a console port that does not match any of the adapters, you must provide the correct adapter for that port.

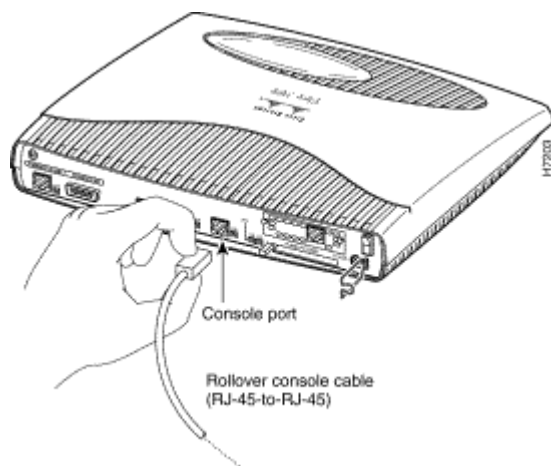


Figure 5

## Appendix F) Passwords

The enable password – used to get into the enable modus of the router – is **presec**.

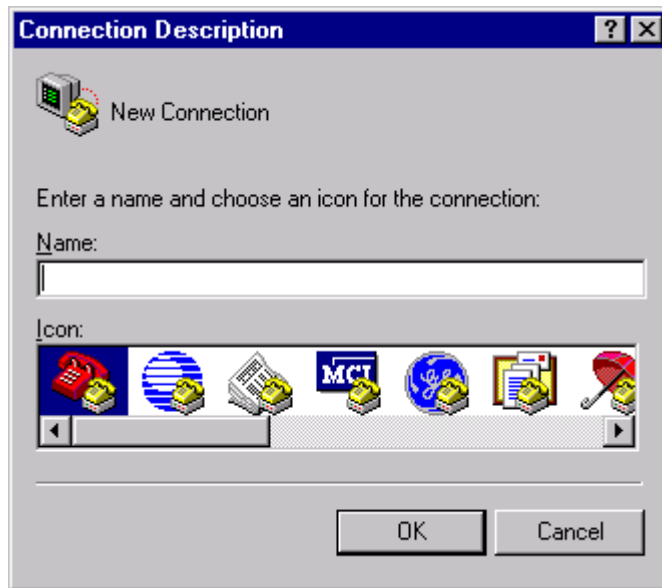
## Appendix G) Configure PC (e.g. Hyperterminal) for communication

Once your router is correctly connected to your PC, you can start building your configuration. The Windows Hyperterminal emulation is the interface to your Cisco 1603 router.

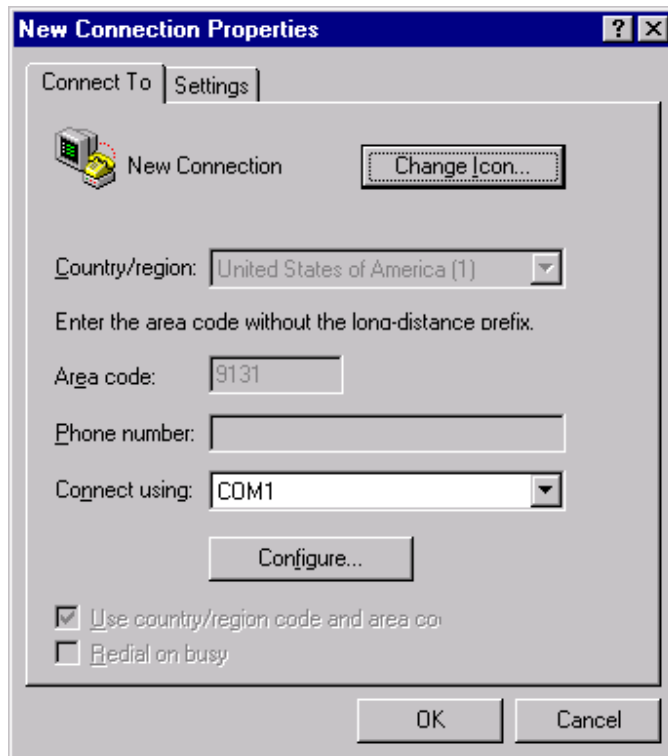
**Step 1** Start Hyperterminal from the „Programs – Accessories – Hyperterminal“ menu in the start panel. If you do not find the program there or anywhere else on your computer, you will have to install it first.

**Step 2** In the „Connection Description“ dialogue box

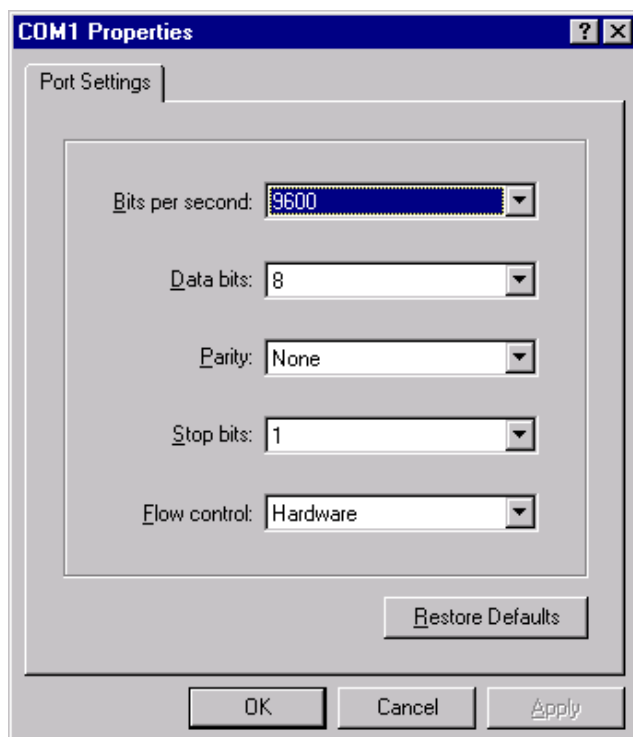
- enter a name for the connection and choose an icon. If you want to save the connection settings click „ok“
- or click „Cancel“



**Step 3** Choose „Properties“ from the „File“ menu. On the „Connect to“ tab, check, if the port (e. g. COM1) to which your router is connected is selected.



**Step 4** Click „Configure“ and make sure that the settings have the following values: Bits per second: 9600, Data bits: 8, Stop bits: 1, Flow control: Hardware. Click „OK“ twice to leave configuration mode.



**Step 5** Choose „Connect“ from the „Call“ menu to establish a connection to the router.

## Appendix J) Concerning modems formerly directly connected to systems

In case you ordered a new analog SRS router (Cisco 805 or Cisco 1603 Analog), and the router is supposed to be connected to a modem which was formerly connected directly to a system/modality, it is absolutely necessary to reset the modem to factory defaults. Otherwise the modem cannot be used along with a SRS router.

The procedure to configure the modem via the router is called ‚reverse telnet‘. In order to carry out this procedure, please follow the steps below. This is **only** the procedure for **Multitech** Modems. If you have a different type of modem, you will have to consult the instruction manual in order to reset the modem to factory defaults.

- Step 1** Connect the light blue console cable to the router and to the 9 pin serial connector on the PC.  
[Refer to *Appendix E* in the HW installation guide.]
- Step 2** Ensure that the router is connected to Ethernet.
- Step 3** Start Hyperterminal (click Start – Programs – Accessories – Hyperterminal – Hyperterminal).  
[Refer to *Appendix* in the HW installation guide.]
- Step 4** Enter a name for this connection and click „OK“.
- Step 5** In the drop-down-box choose the COM port the console cable is connected to.
- Step 6** In the properties dialogue box click „OK“.
- Step 7** Hit ‚Enter‘ until you see the router prompt, e. g. `jac0356323qc828>`

You have now established a connection to the router and will enter the following commands on the router itself:

	description	Router prompt	command
<b>Step 8</b>	Enter into the enable modus of the router	jac0356323qc828>	<b>enable</b>
<b>Step 9</b>	Enter the password to get into the enable modus (this entry is not visible)	password:	<b>presec</b>
<b>Step 10</b>	Enter into the configuration modus of the router	jac0356323qc828#	<b>configure terminal</b>
	The following output will appear	Enter configuration commands, one per line. End with CNTL/Z.	
<b>Step 11</b>	set the ip for modem1	jac0356323qc828(config)#	<b>ip host modem1 2001 10.6.254.2</b>
<b>Step 12</b>	Enter ctrl-z	jac0356323qc828(config)#	<b>^z</b>
	The following output will appear	3d22h: %SYS-5-CONFIG_I: Configured from console by console	
<b>Step 13</b>	log onto the modem	jac0356323qc828#	<b>modem1</b>
	The following output will appear	Trying modem1 (10.6.254.2, 2001)... Open  User Access Verification	
<b>Step 14</b>	Enter the username	username	<b>prerdiag</b>
<b>Step 15</b>	Enter the password (not visible)	password	<b>preset</b>
	The following output will appear	Password OK	
<b>Step 16</b>	Echo on		<b>ate1</b>
	The following output will appear	OK	
<b>Step 17</b>	Reset to factory settings. <b>Note:</b> 0 is „zero“		<b>at&amp;f&amp;w0</b>
	The following output will appear	OK	
<b>Step 18</b>	Press ctrl-shift-6		<b>^[shift] 6</b>
<b>Step 19</b>			<b>x</b>
<b>Step 20</b>	Disconnect from the modem	jac0356323qc828#	<b>disconnect</b>
<b>Step 21</b>	Confirm that the connection to modem1 shall be closed	Closing connection to modem1 [confirm]	<b>&lt;cr&gt;</b>
<b>Step 22</b>			<b>exit</b>

Now your modem and your router are ready to be remotely configured by SIEMENS Remote Services.

## Appendix K) ISDN use of the analog router

**Note:** Should it become necessary to switch from the analog connection to an ISDN connection, the configuration can be done via the analog port of the router.